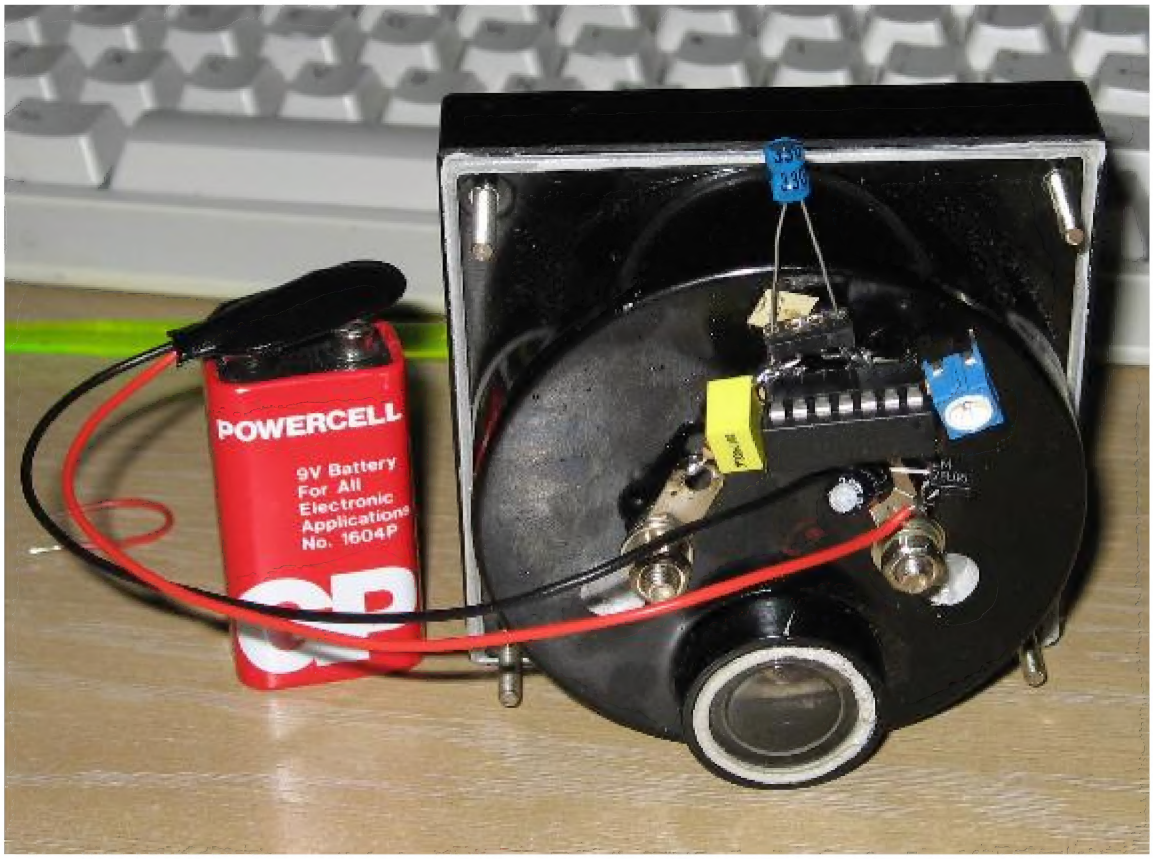
Inductance Meter

2006-09-03

Essentially identical to Dick's circuit, I built the unit point-to-point on an IC socket for the 74HC14 and a fragment of machined pin IC socket for the actual inductor.



Initially I used a DMM as the display device, but on a whim I tried hooking up a moving-coil meter. To my surprise, it actually worked just fine, 1K in series was sufficient to allow a useful calibration and didn't overload the drive capabilities of the last gate in the package.

I calibrated my unit for 0-100 uH, as this is the range I am generally most interested in, and it gives direct-readings on the uA scale of the meter. With the values as Dick specified, there is sufficient range to calibrate it from about 25 uH to 250 uH FSD.

Here is the unit measuring a 33 uH commercial RF choke.

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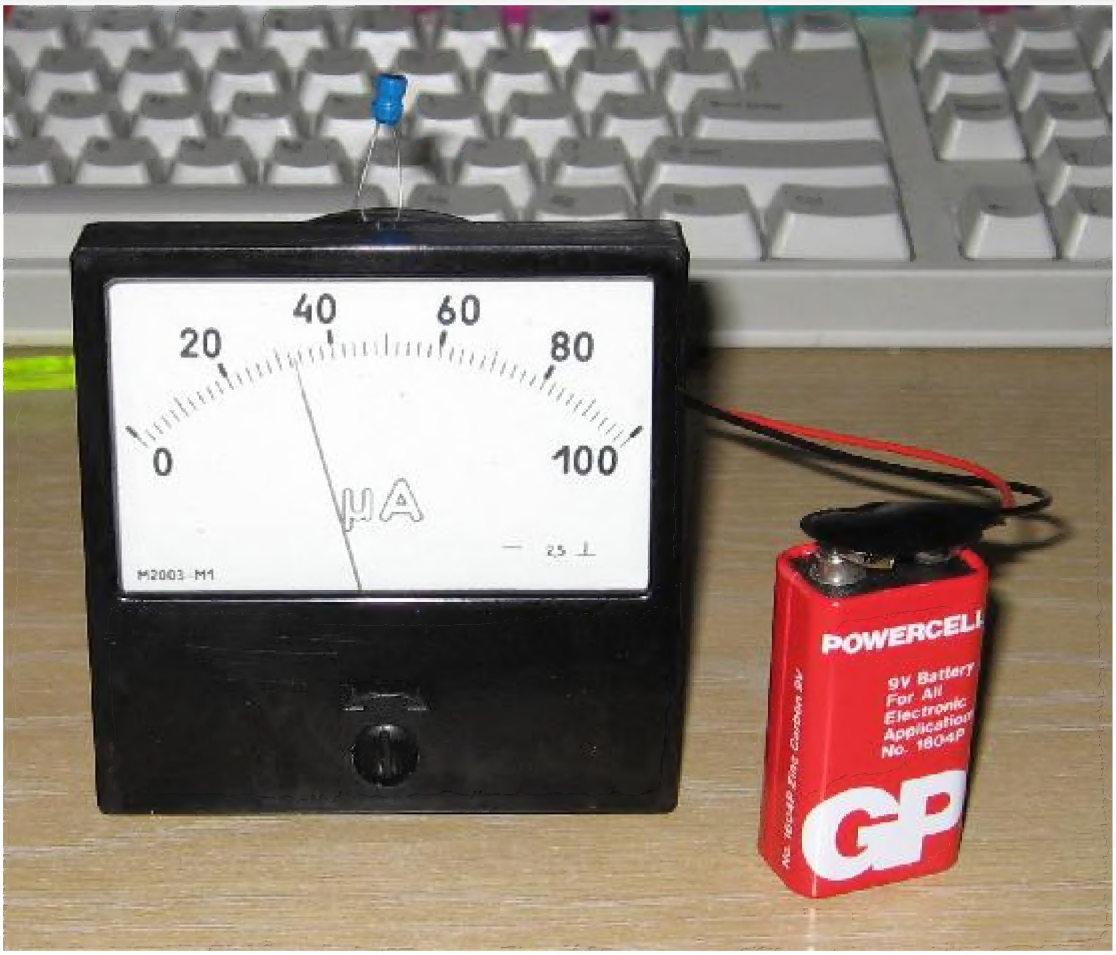

The resolution of the analogue meter obviously limits its performance, but I generally use it to just ensure I am in the right ballpark while winding coils or picking from the junk box. More precise measurements I do with a resonance bridge.

4 comments.

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